

Nordic Casemix Centre - Case #628

Acquired hydrocephalus of newborn

2019-02-13 12:41 - Mats Fernström

Status:	Accepted	Start date:	2019-02-13
Priority:	Minor	Spent time:	0.00 hour
Assignee:	Mats Fernström		
Category:			
Target version:	NordDRG 2020		
Initiator:	Sweden	Target year:	2020
MDC:	MDC01	Owner / responsible:	
Target Grouper:	SWE	Old forum status:	

Description

Mats Fernström, NPK Sweden 2019-02-13 (Swe ID C778)

Problem

A patient case with the diagnosis code P917 'Förvärvad hydrocefalus hos nyfödd' (= P9180 'Acquired hydrocephalus of newborn' in ICD 10 plus 2018, but P9180 has another meaning in Ndrg_COM2019PL0, which is the latest Common version I have. Martti must check this.) and the procedure code AAF05/AASF05 'Ventriculoperitoneal shunt' is grouped to DRG Q40N/389A 'Nyfödd, födelsevikt 1500 g eller mer, med större operation' (Neonate, birthweight 1500 g or more, with major operation) if the patient is less than 29 days old. This is OK, but if the patient is 29-365 days old the DRG will be Z50/468 'Tyngre sällsynt, eller felaktig, kombination av huvuddiagnos och åtgärd' (Rare or incorrect combination of diagnosis and extensive procedure), which is unsatisfying. It is neither rare, nor incorrect, to make shunt procedures on a patient with hydrocephalus.

Analysis

With the same procedure (AAF05/AASF05) but with the diagnosis code Q039/Q0390 'Medfödd hydrocefalus, ospecificerad' (Congenital hydrocephalus, unspecified) the case will be grouped to DRG Q40N/389A if the patient is less than 29 days old, which is consistent with how the acquired hydrocephalus is grouped. But if the patient is more than 28 days old, the DRG will be A09/001D 'Intrakraniell shuntkirurgi (Intracranial cerebrospinal fluid shunt surgery), which also seems to be OK.

We think that shunt surgery on patients with the age 29-365 days shall be grouped in the same way, irrespectively if the hydrocephalus is acquired or congenital. One way to achieve that is to give the code P917 (= P9180?) the same properties as the code Q039/Q0390. However, it would mean a lot of changed properties (both MDC, dgcat, compl, dgprop and pdgpro) which would have consequences for all conservative cases and cases with any other operations, consequences that are difficult to predict.

Therefore we instead suggest extra rules for DRG A09/001D in Drglogic that "catches" the cases before they reach the rules for DRG Z50/468.

The impact of this change is minimal. In our cost database (KPP) for 2017 there were only 13 patients with a shunt procedure (code beginning with AAF) in DRG Z50. The average cost for these cases was 230 912 SEK, which is in parity with the average cost for DRG A09A/E that was 173 536 SEK. After trimming there was 10 cases left with an average cost = 101 694 SEK, which is rather close to the trimmed average cost for DRG A09A/E that was 113 761 SEK. Thus, the cost difference in the trimmed material was only 12%.

Suggestion

Shunt surgery on patients with the age 29-365 days shall be grouped in the same way, irrespectively if the hydrocephalus is acquired or congenital. To achieve this we suggest insertion of two extra rules for DRG A09/001D, one for cases with CC/MCC and one for cases without CC/MCC, in Drglogic.

These extra rules are placed in the MDC 01 area, just below the existing rules for DRG A09/001D, and they are copies of the existing rules for DRG A09/001D, but the MDC field is changed from 01 to 15. See *Suggestion_C778.xlsx* for more details.

History

#1 - 2019-02-14 15:55 - Kristiina Kahur

Finnish National DRG-Centre 2019-2-14

There is no code P917 in Finnish ICD10 version, thus the change is not relevant for Finland.

Nevertheless, we support this change and the rationale behind it.

In Finland the cases with code AAF05 appeared twice in DRG 468 (Z50), one ca 216 000 EUR, the other one ca 6000 EUR. None of the cases had hydrocephalus as main dx, one case had it (Q039) as secondary diagnosis.

The cases with combination of AAF05 and Q039 as main dx (# 3) grouped as described in the proposal, i.e. depending on age of the patient into DRG 389A (Q40N) or 001D (A09).

#2 - 2019-03-06 13:21 - Martti Virtanen

- File *Technical changes case #628.xlsx* added

2019-03-06 NCC (MV)

P91.7 'Acquired hydrocephalus of newborn' has been added by WHO some years ago. It is in use in Iceland, Latvia, Norway and Sweden. Denmark, Estonia and Finland do not follow the WHO update.

The code is linked to P9180 'Other specified disturbances of cerebral status of newborn' that belongs to MDC 15.

The mapping is obviously wrong. The 'acquired hydrocephalus of newborn' is usually an effect of periventricular leucomalasia (P9120) and can be seen as extreme form of periventricular cysts of newborn (P9110). Either of these codes would be a better match to P91.7. They belong to MDC 01 and thus solve the problem.

The case does not need a logic change. That would allow all neonatal dx to be assigned to DRG 001D / A09D&E, which not what was intended.

Instead we either link P91.7 to P110 or create a new code P170 in ICD+. The latter would have same properties as P9110.

This is a correction of an obvious error affect all versions that use P91.7.

#3 - 2019-03-27 16:01 - Martti Virtanen

- Status changed from Active to Accepted

2019-03-11 Expert group

Expert group accepted the change of ICD+ mapping.

Files

Suggestion_C778.xlsx	13.3 KB	2019-02-13	Mats Fernström
Technical changes case #628.xlsx	34.1 KB	2019-03-06	Martti Virtanen